

AMENDMENTS TO SPECIFICATION

Please replace the paragraph at lines 21-28 of page 2 of the application with the following paragraph:

According to the above, the gene expression products may include at least one gene expression product that is expressed in the mesoderm, ectoderm and/or endoderm, where the expression product expressed in the ectoderm may be for example, neurofilament heavy chain (NF-H), keratin or adrenal dopamine β hydroxylase (D β H), the expression product expressed in the mesoderm may include any of enolase, renin, cartilage matrix protein (CMP), ~~kalikrein~~ kallikrein, Wilms Tumor 1 (WT1), cardiac actin (cACT), ~~δ -globin globulin~~ or ~~β -globin globulin~~, the gene expression product expressed in the endoderm may include albumin, α 1-antitrypsin (α 1AT), amylase, pancreatic and duodenal homeobox gene 1 (PDX-1), insulin and α -fetoprotein (α FP).

Please replace the paragraph at lines 15-25 of page 8 of the application with the following paragraph:

In a preferred embodiment, we have provided a novel approach for obtaining human differentiated cells from embryonic cells and have established methods to enrich mixtures of multiple cell types (for example, human cell types) *in vitro* using specific exogenous factors. Utilizing the property of embryonic stem cells for indefinite growth in culture, we describe a means to manipulate differentiation of embryonic stem cells, in particular human embryonic cells, to provide a source of cells for transplantation into a subject. We have found that treatment of dissociated embryoid bodies with exogenous factors can give rise to populations of cells with discrete morphologies such as small cells with pronounced, muscle like ~~syncytiums~~ syncytiums, neuronal like cells, fibroblast like cells, large round cells or other mesenchymal or epithelial cells. These differing morphologies that suggest that specific programs are initiated as a result of treatment with the factors.